

Fishes and whales need fins for swimming : they develop them but from different portions of their bodies. So also with the wings of insects, birds and bats : they are in each case grown by a different process. Life, when adopting the water, or the air, as its environment, appears to be wholly indifferent as to the method of adaptation.

It concerns itself with results, not with process—in fact, *la fonction fait l'organe*.

The evolution of the myriad forms of animal and plant life does not appear to have resulted from the modification of living tissue under the pressure of surrounding forces, but from the action of two vital energies—multiplication and variation—which have been incessantly forcing living organisms into, as it were, a complicated and many-branched system of channels, or moulds (such as we may liken to the arteries of the human body), which represent the almost infinitely varied means of procuring subsistence. The multiplication of individuals supplies the pressure : their variation is the means by which they are able gradually to penetrate each channel of the system. There is enormous wastage : millions of organisms come into the world merely to increase the head of the pressure : millions of variations are useless, do not assist their possessors to find their way into a new channel, and are extinguished as soon as they arise.

In the history of evolution there are two features which appear to confirm this

hypothesis.

Firstly, there is the gradual progress of life from the sea to the land, and from the land to the air. Of this, geology assures us. It can hardly be explained by any materialistic theory of adaptation, since the progress must have come about, not by adaptation to environment, but by the extension of life to a new environment. Secondly, there is the